Sinclair and Dyes Inlets
Fecal Coliform TMDL

Can We Have Growth without Degrading Water Quality?

WASHINGTON STATE DEPARTMENT OF ECOLOGY

"Growth Scenario" Presentation

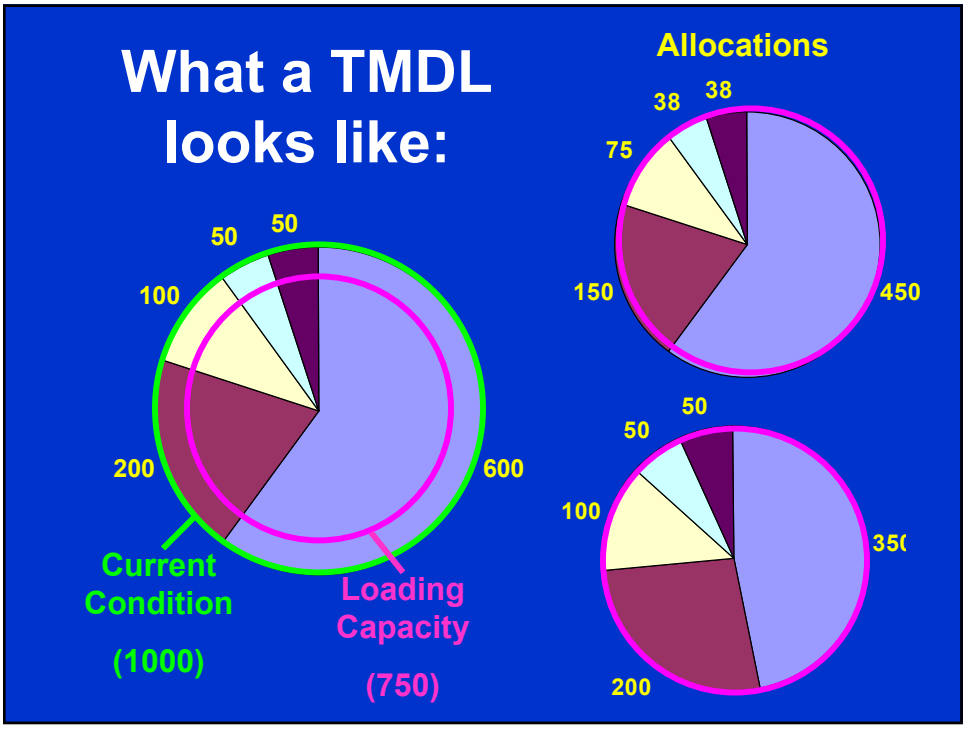
Community Advisory Committee

February 24, 2005

- Explain Water Cleanup Plan
- Uses of the Sinclair & Dyes Inlets combined models
  - For Water Cleanup Plan – calculate loads of bacteria from sources
    (current land uses & critical conditions)
  - To answer "What if" questions – different land use conditions that affect streamflow and storm discharges
- Proposal: Use models to assess impacts of increased impervious area (i.e. growth) on water quality

Water Cleanup Plan (TMDL) Elements

- Restore beneficial uses – marine shellfish harvest; freshwater recreational uses
- Determine loading capacity of water bodies
- Allocate reductions of fecal coliform to sources:
  - o Stormwater outfalls, Wastewater Treatment Plants
  - o Streams, Sheet runoff
- Develop Implementation Plan with local organizations to ensure reductions occur

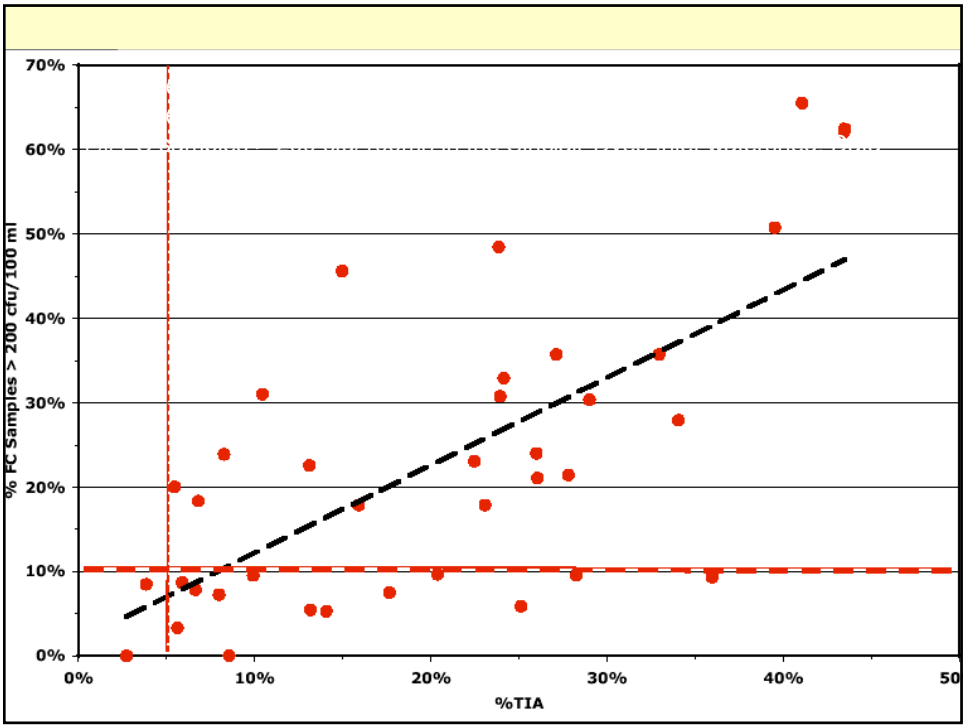


Growth and Water Quality

- Kitsap County is developing rapidly – 22% population increase in 10 years
- Impervious surface will increase
- Stormwater discharge will likely increase
- Stormwater is an efficient conveyor of fecals to streams and marine waters
- How will Sinclair and Dyes marine water quality be affected?

Growth and Water Quality

- North Carolina – increased shellfish closures with 27 years intensified development (Duda & Cromartie, 1982)
- Sinclair & Dyes Inlets bacterial analysis (May et al. draft Oct 2004)
  - o Streams with intensified land use
  - o Stormwater outfalls from drainages with high % impervious area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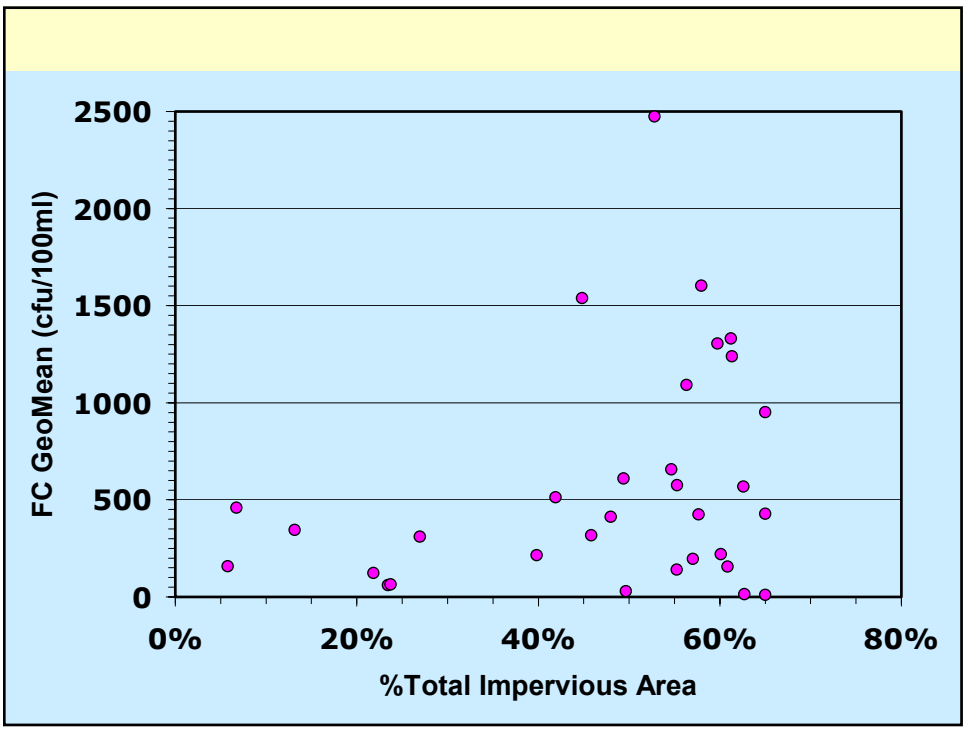
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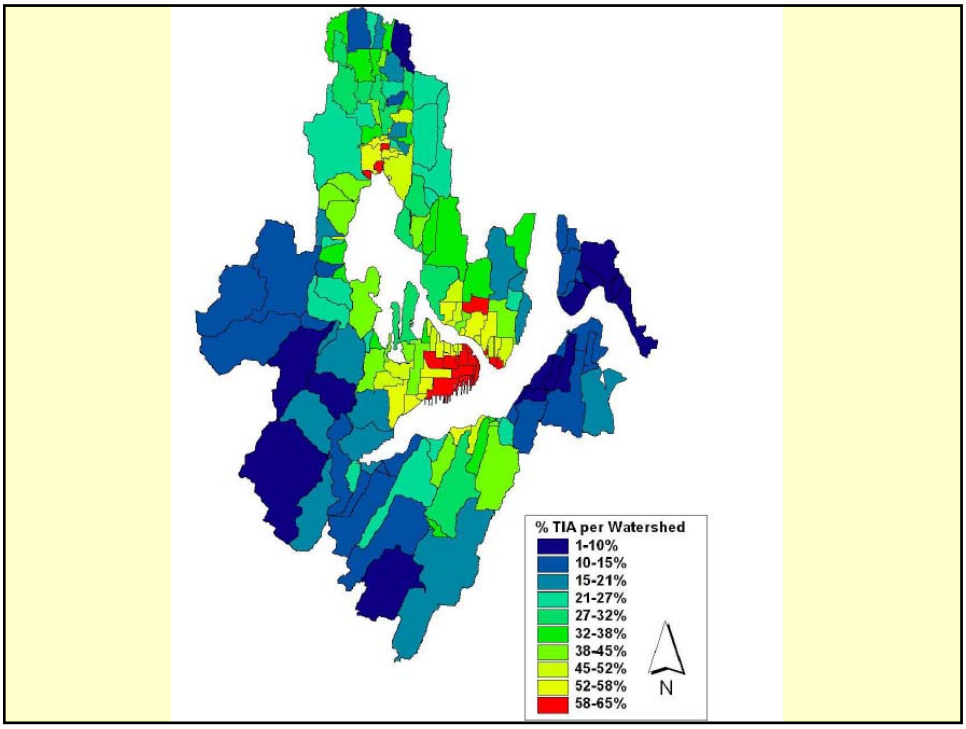

Growth and Water Quality

- Redraw the map of sub-watersheds with future % Total Impervious Areas
- Develop 2 contrasting development scenarios
  - %TIA increases similar to 1980 – 2000
  - % TIA increases much less (stormwater infiltration using Low Impact Development)
- Run the models – What impact to WQ?

Developing the Growth Scenarios

- List assumptions, methods
- Select future year for analysis – 2025?
- Review & revise proposal
  - Community Advisory Committee – June 23, 2005
  - Technical Steering Committee – April/May
- Run the model – July 2005
- Use results to inform planning process

Clean Water Is For Everyone!

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